REMARKS

In the June 19, 2001, Office Action the Examiner granted Claims 14 – 19, and Applicants respectfully acknowledge this decision.

The Examiner rejected pending Claims 1-13 on the grounds that such Claims were considered obvious under 35 USC §103 in view of United States Patent No. 5,881,366 to Bodenmann et al. (1999). Applicants respectfully request reconsideration of this position in view of the proposed Claim amendments and the following discussion. For example, Claim 1 has been amended to clarify that a system is claimed, and not just a game controller, and Claim 8 has been amended to more clearly define Applicants' invention. New Claims 20 and 21 are enclosed to recite the data correction and data conservation capabilities of the system disclosed in Applicants' Specification.

In the Office Action the Examiner correctly stated that Bodenmann et al. does not specifically disclose time domain multiplexing, however the Examiner stated that Bodenmann et al. "is nonetheless capable of being modified to do so . . . ." As stated below, Applicants respectfully disagree with this application of the §103 obviousness standard. In the absence of any teachings by Bodenmann et al. of time domain multiplexing in combination with the other disclosed features, there must be some sort of suggestion in the cited prior art reference that such a combination would be possible or advisable. Applicants have carefully reviewed Bodenmann et al. for any suggestion that the data transmission should or could be transmitted with a time domain multiplexed device, and have not located any such statement. In the absence of any suggestion or statement that such a combination could be accomplished or used, a rejection under §103 is not substantiated by the record.

Even if the "possibility of modification" criteria was the legal standard for obviousness, Applicants believe that their invention is not obvious because Bodenmann et al. specifically teaches away from their invention by teaching an entirely different apparatus and technique for transmitting data. Instead of teaching or suggesting a device using time domain multiplexed data transmission, Bodenmann et al. teaches a protocol applicable to either IR or RF use -"[T]he protocol of the present invention is equally applicable to both IR and RF operation" (Col. 5, lines 53-54), which uses sequential, prioritized data transmission. The teachings of Bodenmann et al. can be summarized by the following steps:

a) Sequenced data transmission;
b) Prioritization of data being transmitted;
c) Delay of data having secondary priority; and
d) Rejection of data following transmission overlap.

Support for each of these independent teachings is found in Bodenmann et al. as follows:

a) <u>Sequenced data transmission</u> – A first device transmits over a short interval and then stops transmission to permit transmission by a second device.

> "In the event the configuration includes a host and a plurality of peripheral devices, it may be necessary for the host or master to synchronize the messages or emissions transmitted by the various peripherals, such as a plurality of interactive gamepads or joysticks. In such instance, the objective is to allow each peripheral to transmit in its turn." (Col 7, lines 38-43)

b) <u>Prioritization of data being transmitted</u> – Data is identified as to priority so that simultaneous transmission can be avoided.

> "Further, priority is given, under the protocol of the present invention, to devices requiring such priority for successful operation." (Col. 2, lines 49-52)

> "The DATATYPE field, as shown in Figure 6, is classified hierarchically in terms of the associated report rate; that is, devices having more serious time constraints get higher priority . . . [A] next level of priority is assigned to 3D and 6D pointing devices 620 with lower priorities . . . [I]t will be apparent from the arrangement of

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FIG. 6 that the shorter the length of the DATATYPE field, the higher the priority. It will also be appreciated that other, lower priority devices can simply be added by increasing the number of 20 bits in the DATATYPE field." (Col. 8, lines9-28)

See also claims 1 and 10 in Bodenmann et al. for a recitation regarding the prioritization of first priority and second priority data.

c) <u>Delay of data having secondary priority</u> – After secondary priority devices are identified, transmission of such data is delayed so that it does not interfere with priority transmissions.

> "In a presently preferred embodiment, varying latency periods are associated with the various device types which may be configured to communicate with a host in accordance with the present invention." (Col. 4, lines 38-41)

> "Also as with the IR implementation, data encoding using Miller "Delay Modulation" with determined start and end sequences is presently preferred, with determined start and end sequences is presently preferred . . ."(Col. 6, lines 12-15)

d) <u>Rejection of data following transmission overlap</u> – If overlap between data transmissions occurs, the teaching is to reject both transmissions.

> "For example, as long as a user does not use two asynchronous uni-directional devices simultaneously, any number of such devices may work together, and each will transmit only when it generates a user action report. Multiple function, uni-directional devices simply generate user action reports corresponding to the movement or action detected. If two messages should overlap due to simultaneous use of multiple such devices, a collision may occur and both messages may be rejected for safety." (Col. 11, lines 34-43)

The teachings above by Bodenmann et al. do not provide for the simultaneous use of and data transmission from different devices, but instead propose a sequential transmission technique which necessarily requires the prioritization of data packets because they can not be simultaneously transmitted. Instead of teaching concurrent transmission, overlap or "collision" is handled by rejecting both data streams. By these teachings, Applicants believe that Bodenmann et al. expressly teaches away from the

invention. In view of such teachings and the other record prior art, Applicants believe that the pending Claims as amended are patentable, and Applicants respectively request allowance of pending Claims 1-13 and 20-21.

Respectfully submitted,

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